

REMARKS

Amendments

Amendments to the Claims

Applicant has amended the claims to more particularly point out what Applicant regards as the invention. Specifically, Applicant claims a first filter that transmits a first set of wavelengths, wherein the set of wavelengths corresponds to at least two imaging channels, where a first imaging sensor senses the light transmitted through the first filter. In addition, Applicant claims a second filter that transmits a second set of wavelengths, wherein the second set of wavelengths corresponds to at least two imaging channels offset from the imaging channels of the first set of wavelengths and a second imaging sensor senses the light transmitted through the second filter. No new matter has been added as a result of these amendments because support for these amendments can be found, *intra alia*, in paragraphs 18, 20, and 47. Furthermore, Applicant cancels claims 12, 20, and, 30 without prejudice.

Objections

Objections to the Claims

The Examiner objected to claim 6 as containing informalities. Applicant has corrected the informalities and respectfully requests the withdrawal of the objection. Applicant further respectfully submits that no new issues are raised by the corrections.

Rejections

Rejections under 35 U.S.C. § 102(b)

Claims 1, 3-5, 7, 8

Claims 1, 3-5, 7, 8 stand rejected under 35 U.S.C. § 102(b) as being anticipated by Tani, U.S. Patent 5,379,063-first interpretation ("Tani-1").

Tani-1 discloses a video device comprising two charge coupled devices (CCD). The first CCD has an infrared-cut filter that only transmits luminance values of a subject. The second CCD has an infrared-cut filter and a complementary color filter that transmits the colors of the subject.

In claims 1, 3-5, 7, and 8, Applicant claims a second filter that transmits lights at a second set of wavelengths, wherein the second set of wavelengths corresponds to at least two imaging channels. In the first interpretation of Tani, the Examiner equates Applicant's second filter to Tani-1's infrared-cut filter connected to the first CCD. However, because this infrared-cut filter only transmits luminance values, the filter only transmits one imaging channel (luminance data). Because Tani's infrared-cut filter only transmits one imaging channel, and not at least two imaging channels as claimed, Tani-1 cannot be properly interpreted as teaching or suggesting this claimed element.

Therefore, Applicant respectfully submits that the invention claimed in claim 1, 3-5, 7, and 8 is not anticipated by Tani-1 under 35 U.S.C. § 102(b). Accordingly, Applicant respectfully requests the withdrawal of the rejection of the claims.

Claims 1, 6 and 9-11

Claims 1, 6 and 9-11 stand rejected under 35 U.S.C. § 102(b) as being anticipated by Tani, second interpretation ("Tani-2").

Tani-2 differs from Tani-1 in that the Examiner equates the infrared-cut filter connected to the first CCD to Applicant's first filter. However, in claims 1, 6, and 9-11, Applicant claims the first filter transmitting a first set of wavelengths, the first set of wavelengths corresponding to at least two imaging channels. Because Tani-2's infrared-cut filter only transmits one imaging channel and not as least two imaging channels as claimed, Tani-2 cannot be properly interpreted as teaching or suggesting the claimed element.

Therefore, Applicant respectfully submits that the invention claimed in claim 1, 6, and, 9-11 is not anticipated by Tani-2 under 35 U.S.C. § 102(b). Accordingly, Applicant respectfully requests the withdrawal of the rejection of the claims.

Rejections under 35 U.S.C. § 102(e)

Claims 1, 2, 13-19, 21, 25-29, and 31

Claims 1, 2, 13-19, 21, 25-29, and 31 stand rejected under 35 U.S.C. § 102(e) as being anticipated by Noguchi, U.S. Patent 6,885,394. Applicant does not admit that Noguchi is prior art and reserves the right to challenge the reference at a later date.

Noguchi discloses a photographic system with at least four CCD sensors each capable of sensing a focused image in different wavelength regions. Noguchi further discloses that the wavelength regions are clustered around a single different wavelength (e.g., see Noguchi, Figs. 3 and 5).

In independent claims 1, 13, 15, and 25, Applicant claims two sensors each receiving a different set of wavelengths, each set corresponding to at least two imaging channels. In contrast, Noguchi discloses each CCD sensor sensing the image in a different wavelength region. However, because each wavelength region is clustered around a different wavelength, each CCD sense only one imaging channel. Thus, each of Noguchi's CCD sensors sense only one imaging channel and not at least two imaging channels as claimed. Therefore, Noguchi cannot be properly interpreted as disclosing the claimed element.

Therefore, Noguchi cannot be properly interpreted as anticipating Applicant's invention as claimed in claims 1, 13, 15, and 25 and claims 2, 14, 16-19, 21, 26-29, and 31 that depend on them. Accordingly, Applicant respectfully submits that the invention claimed in claims 1, 2, 13-19, 21, 25-29, and 31 is not anticipated by Noguchi under 35 U.S.C. § 102(e) and respectfully request the withdrawal of the rejection of the claims.

Rejections under 35 U.S.C. § 103

Claims 22, 24, 32 and 34

Claims 22, 24, 32 and 34 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Noguchi in view of Vilaseca, et al. ("Spectral-reflectance reconstruction in the near-infrared region by use of conventional charge-coupled device camera measurements").

Vilaseca discloses calculating reflectance spectra of an image in the near-infrared using a conventional CCD camera.

Claims 22, 24, 32, and 34 depend on independent claims 15 and 25. In independent claims 15 and 25, Applicant claims Applicant claims two sensors each receiving a different set of wavelengths, with each set corresponding to at least two imaging channels. Because Vilaseca does not disclose the conventional CCD camera as having more than one sensor, Vilaseca cannot teach or suggest two sensors receiving a

different set of wavelengths, each set comprising at least two imaging channels as claimed. Thus, neither Noguchi nor Vilaseca teaches or suggests the claimed element.

Therefore, the combination cannot render obvious Applicant's invention as claimed in claims 15 and 25 and claims 22, 24, 32, 34 that depend on them, and Applicant respectfully requests the withdrawal of the rejection of the claims under 35 U.S.C. § 103(a) over the combination.

Claims 23 and 33

Claims 23 and 33 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Noguchi in view of Arai, U.S. Patent 5,864,834.

Arai discloses a neural network used to estimate spectral reflectance distribution of an image.

Claims 23 and 34 depend on independent claims 15 and 25. In independent claims 15 and 25, Applicant claims two sensors each receiving a different set of wavelengths, with each set comprising at least two imaging channels. Because Arai does not disclose a device that captures the image, Arai cannot teach or suggest the claimed element.

Therefore, the combination of Noguchi and Arai cannot render obvious Applicant's invention as claimed in claims 15 and 25 and claims 23 and 33 that depend on them, and Applicant respectfully requests the withdrawal of the rejection of the claims under 35 U.S.C. § 103(a) over the combination.

SUMMARY

Claims 1-10, 13-19, 22-29, and 32-34 are currently pending. In view of the foregoing amendments and remarks, Applicant respectfully submits that the pending claims are in condition for allowance. Applicant respectfully requests reconsideration of the application and allowance of the pending claims.

If the Examiner determines the prompt allowance of these claims could be facilitated by a telephone conference, the Examiner is invited to contact Eric Replogle at (408) 720-8300 x7514.

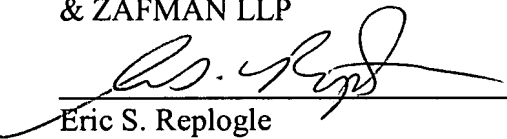
Deposit Account Authorization

Authorization is hereby given to charge our Deposit Account No. 02-2666 for any charges that may be due. Furthermore, if an extension is required, then Applicant hereby requests such extension.

Respectfully submitted,

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